e-ISSN: 0976-822X, p-ISSN:2961-6042

Available online on http://www.ijcpr.com/

International Journal of Current Pharmaceutical Review and Research 2026; 18(6); 2113-2123

Case Series

From Prescription to Dependence: A Case Series on Tapentadol Dependence

Pranshi Agrawal[1], Manish Borasi[2], Apoorv Shah[3]

[1]Third Year Post Graduate Resident, Department of Psychiatry, Chirayu Medical College, Bhopal, MP, India

[2]Professor and HOD, Department of Psychiatry, Chirayu Medical College, Bhopal, MP, India

[3]Senior Resident, Department of Psychiatry, Chirayu Medical College, Bhopal, MP, India

Received: 27-04-2026 / Revised: 26-05-2026 / Accepted: 28-06-2026

Corresponding Author: Dr. Pranshi Agrawal

Conflict of interest: Nil

Abstract:

Background: Tapentadol is a centrally acting analgesic with dual pharmacological activity as a μ-opioid receptor agonist and norepinephrine reuptake inhibitor. Although it is considered to possess a comparatively favorable safety profile than conventional opioids, prolonged or unsupervised use may lead to tolerance, withdrawal, and opioid dependence. Reports describing the transition from legitimate therapeutic use to dependence remain limited, particularly in the Indian setting.

Cases Presentation: We describe a case series of five adult patients who developed Tapentadol dependence following its initial prescription for legitimate medical indications, including musculoskeletal injury, postoperative pain, chronic low back pain, dysmenorrhoea, and other painful conditions. All patients demonstrated progressive dose escalation after initial therapeutic exposure and fulfilled ICD-10 diagnostic criteria for opioid dependence syndrome. Daily Tapentadol consumption ranged from approximately 1,500 mg to more than 3,000 mg at presentation. Common clinical features included craving, tolerance, withdrawal symptoms, impaired control over drug use, continued consumption despite adverse consequences, and marked psychosocial dysfunction. Concurrent tobacco dependence was present in most patients, while some also had cannabis, alcohol, or other substance use. All patients received inpatient detoxification, symptomatic management of withdrawal, motivational enhancement therapy, relapse prevention counselling, family psychoeducation, and maintenance treatment with oral naltrexone where appropriate.

Conclusion: This case series highlights that Tapentadol dependence can emerge following legitimate medical prescription when prolonged use occurs without adequate monitoring. Early recognition of warning signs, cautious opioid prescribing, regular follow-up, and timely psychiatric referral are essential to prevent progression from therapeutic use to opioid dependence.

Keywords: Tapentadol, Prescription opioid, Opioid dependence, Substance use disorder, Case series, India.

DOI: 10.25258/ijcpr.18.6.337

Introduction

Prescription opioid misuse has emerged as an important public health concern worldwide, with increasing recognition that dependence frequently develops following legitimate therapeutic exposure. Although opioids remain indispensable for the management of moderate to severe pain, prolonged administration, inadequate monitoring, and unsupervised continuation of therapy may contribute to tolerance, physical dependence, and opioid use disorder. Growing availability of prescription opioids has shifted the epidemiology of substance use disorders from illicit opioids toward pharmaceutical preparations in several countries, including India. [1–4]

Tapentadol is a centrally acting analgesic that combines μ-opioid receptor agonism with inhibition of norepinephrine reuptake, thereby providing effective analgesia through two complementary mechanisms. Because of its favorable gastrointestinal tolerability and comparatively lower incidence of certain opioid-related adverse effects, Tapentadol has been increasingly prescribed for acute postoperative pain, musculoskeletal disorders, neuropathic pain, and chronic non-cancer pain. Nevertheless, its opioid agonist activity confers significant abuse liability, particularly when treatment extends beyond the recommended duration or when medication is continued without appropriate medical supervision. [5–8]

Emerging evidence suggests that dependence on Tapentadol is increasingly encountered in routine psychiatric and de-addiction practice. Patients often begin treatment for genuine painful medical conditions but gradually develop dose escalation, craving, withdrawal symptoms, loss of control, and continued use despite physical, psychological, occupational, and social consequences. Despite these observations, clinically detailed reports describing the progression from prescribed Tapentadol use to established dependence remain scarce, especially from India. [9–12]

The present case series describes five patients who developed Tapentadol dependence following therapeutic prescription. By documenting their clinical course, dependence characteristics, associated psychiatric features, and treatment outcomes, this report aims to improve awareness among clinicians regarding early warning signs of prescription opioid dependence and emphasizes the importance of rational prescribing, regular monitoring, and timely intervention to reduce the burden of iatrogenic opioid dependence.

Case Series

CASE-1: A 25-year-old male, engineering graduate and businessman by occupation, was brought by his family with a history of escalating use of Tapentadol following initial prescription exposure.

The patient was first prescribed Tapentadol in 2016 for a sustained lower back injury sustained during sports activity. The indication for prescription was acute, musculoskeletal pain following injury for which tapentadol was initiated as analgesic therapy. Following the first exposure, the patient reported a pleasant subjective experience characterized by mild dizziness and perceived enhancement in gaming performance, which acted as a reinforcing factor for continued use beyond medical indication.

Over time, a progressive escalation in Tapentadol consumption was observed. In 2017, the patient increased use to alternate-day intake along with initiation of daily nicotine use. By 2018, intake escalated to approximately 200 mg/day, accompanied by decline in academic performance, including failure in multiple subjects. In 2019, further escalation to 300–400 mg/day was noted, during which the patient reported increased perceived work efficiency, libido, and overall performance following intake. During 2020, due to lockdown-related unavailability, the dose was reduced to approximately 200 mg/day, during which the patient developed anxiety, restlessness, lacrimation, rhinorrhea, insomnia, tremors, diarrhea - withdrawal symptoms suggestive of physiological dependence. In 2021, a marked escalation in consumption occurred, reaching 500-700mg/day, along with increasing irritability, aggression, and functional impairment.

During 2022–2023, daily Tapentadol consumption further increased to approximately 1000–1200 mg/day. By 2025–2026, the patient had developed severe dependence, with daily intake reaching approximately 2000–2500 mg/day, for which he was admitted in hospital.

The patient also developed concurrent nicotine dependence (8–10 cigarettes/day) and occasional use of alcohol. Parents reported a history of conduct problems since adolescence, including repeated absenteeism from school, frequent lying, aggression towards family members and peers, repeated disciplinary complaints from school, and violation of household rules, suggestive of conduct disorder.

Family History: The patient's brother has a history suggestive of opioid dependence. History s/o BPAD in uncle.

Mental Status Examination: Patient was conscious, alert, and cooperative during the interview. Eye contact initiated and was maintained; Psychomotor activity was mildly increased with observable restlessness.

Speech was spontaneous, coherent, and relevant, with normal rate and volume.

The patient described his mood as irritable. Affect was anxious, irritable, and congruent with the stated mood, with appropriate range and reactivity. Thought content revealed persistent craving for Tapentadol, preoccupation with obtaining the drug, The patient was in the pre-contemplation stage of motivation, demonstrated an internal locus of control.

Attention and concentration were mildly impaired. Insight-grade2

Investigations CBC, liver function tests, renal function tests, and serum electrolytes, MRI Brain were within normal limits.

Diagnosis: A final diagnosis of Mental and Behavioral Disorders due to Use of Opioids – Dependence Syndrome (F11.24) with Tobacco Dependence Syndrome (F17.24) was made.

Scale: The severity of opioid withdrawal was assessed using the Clinical Opiate Withdrawal Scale (COWS). At presentation, the patient had a COWS score of 8, indicating mild opioid withdrawal

Treatment: Pharmacological agents were gradually increased according to clinical response and

tolerability during the course of admission: Tab Sodium Valproate was increased to

1750 mg/day, Tab Baclofen to 20 mg OD, Tab Haloperidol to 5 mg BD, and Tab

Pregabalin to 75 mg OD, Tab Amitriptyline 50 mg and Niclonz pastille (SOS) were added for craving and tobacco dependence. Following detoxification, Tab Naltrexone 25 mg OD was initiated for relapse prevention.

At discharge, the patient was maintained on Tab Naltrexone 50 mg OD, Tab Sodium Valproate 1000 mg/day, with Tab Pregabalin 75 mg OD, Niclonz pastille.Tab Baclofen and Tab Haloperidol were gradually tapered off prior to discharge as agitation and restlessness resolved, COWS scored decreased to 2. Regular outpatient psychiatric follow-up was advised.

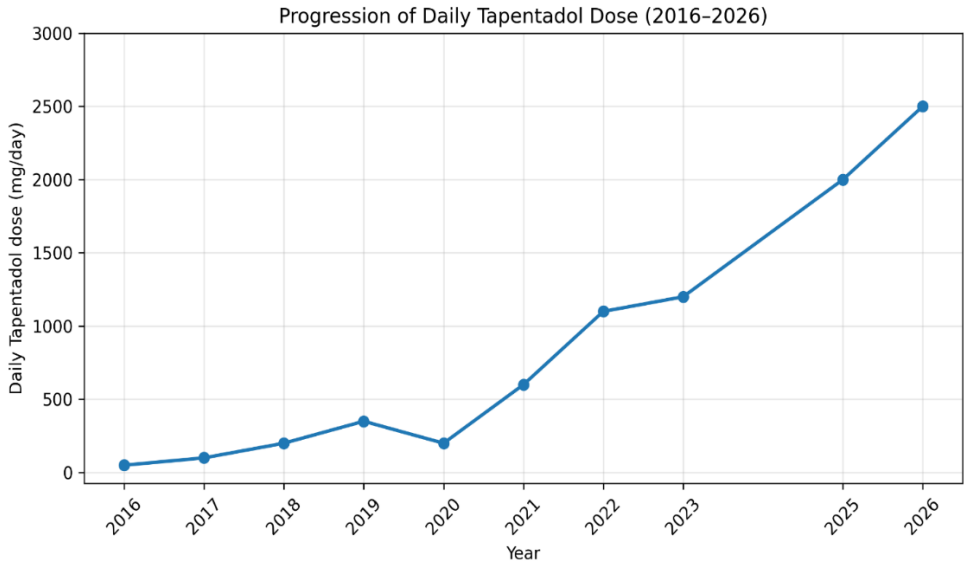


Figure 1: Clinical progression and dose escalation of Tapentadol use in Case 1.

CASE-2: A 22-year-old unmarried male, trainee pilot by occupation, was brought by his parents with complaints of progressively increasing Tapentadol consumption over the preceding five years, associated with tobacco and cannabis use, behavioral changes, and declining occupational functioning.

The patient was initially prescribed Tapentadol in 2021 for postoperative pain following arthroscopic anterior cruciate ligament (ACL) reconstruction after a sports-related knee injury. The medication was prescribed as short-term analgesic therapy. Following the initial exposure, the patient reported subjective feelings of relaxation, mild euphoria, and perceived improvement in alertness and concentration during pilot training, which reinforced continued consumption beyond the prescribed duration. Thereafter, a gradual escalation in Tapentadol use was observed. During 2021, the patient continued self-medication following completion of the prescribed course, with daily intake increasing to approximately 300–400 mg/day. Concurrently, he initiated occasional cigarette smoking and cannabis use in social settings.

By 2022, daily Tapentadol consumption had increased to 700–900 mg/day, accompanied by declining attention, impaired concentration, and deteriorating academic performance during pilot training. Tobacco use increased to 6–8 cigarettes/day. In 2023, the daily dose further escalated to 1200–1500 mg/day. The patient reported consuming Tapentadol before simulator sessions because of a perceived improvement in confidence and reduction in performance anxiety, while family members noticed increasing irritability, reduced social interaction, and neglect of responsibilities.

During 2024, daily consumption increased to approximately 1800–2200 mg/day. The patient developed withdrawal symptoms, including restlessness, generalized body aches, insomnia, sweating, rhinorrhea, and intense craving whenever Tapentadol was unavailable, suggestive of physiological dependence. Despite significant functional impairment, opioid use continued unabated. Cannabis use progressed to almost daily consumption. By 2025–2026, the patient had developed severe opioid dependence with daily Tapentadol intake reaching approximately 2500–3000 mg/day. He demonstrated loss of control over substance use, persistent craving, continued use despite harmful consequences, and marked occupational impairment resulting in suspension from pilot training. Concurrent tobacco dependence (6–8 cigarettes/day) and daily cannabis use (2–3 joints/day) were also present.

Family history: Significant for opioid dependence in elder brother.

On mental status examination: Patient was conscious, alert, and cooperative during the interview. Eye contact was maintained, and rapport was established. Psychomotor activity was normal. Speech was spontaneous, with normal rate, tone, and volume, coherent, relevant, and goal-directed. The patient described his mood as worried. Affect was anxious, congruent with the stated mood, and appropriately reactive. Thought content revealed worried, particularly regarding his inability to stop Tapentadol use and the suspension of his pilot training. Insight grade- 2

Investigations: CBC, liver function tests, renal function tests, and serum electrolytes, MRI Brain were within normal limits.

Diagnosis: A diagnosis of Mental and Behavioral Disorders due to Use of Opioids (F11.24), Tobacco (F17.24) and Cannabinoid Dependence Syndrome (F12.24) was made.

Scale: The severity of opioid withdrawal was assessed using the Clinical Opiate Withdrawal Scale (COWS). At presentation, the patient had a COWS score of 7

Treatment: The patient was managed in an inpatient setting. Withdrawal symptoms were managed

symptomatically, with doses gradually up titrated according to response-Tab Clonidine

up to 0.1 mg BD, Tab Pregabalin up to 75 mg/day, along with non-opioid analgesics

and supportive care. Nicotine replacement therapy was provided for tobacco

dependence. Following detoxification Tab Naltrexone 25 mg/day OD was initiated.

At discharge, the patient was maintained on Tab Naltrexone 50 mg/day OD along with

nicotine replacement therapy, Tab Clonidine and Tab Pregabalin were gradually tapered

off as withdrawal symptoms resolved. COWS score decreased to 3, along with relapse-prevention counselling, family psychoeducation, and advice for regular follow-up.

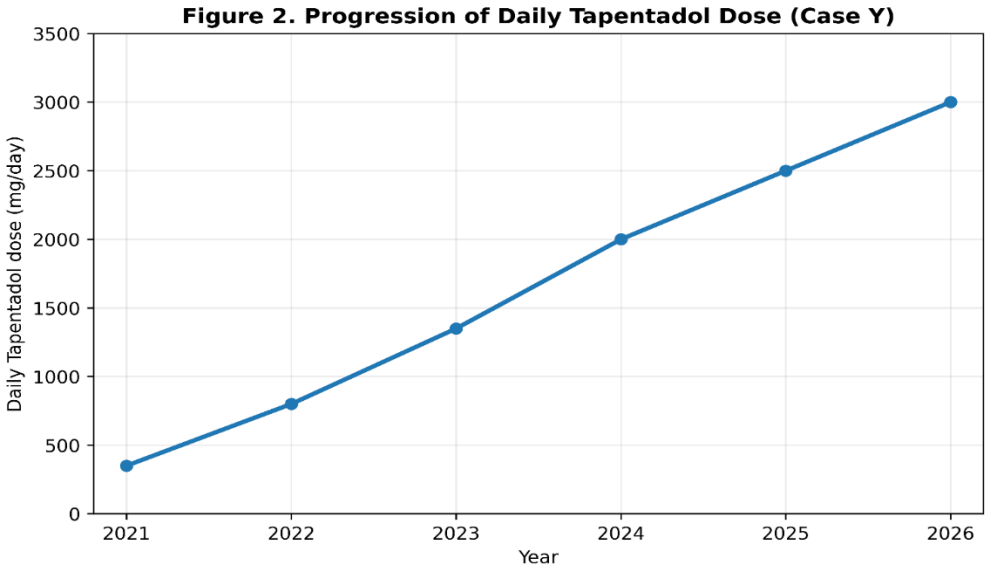


Figure 2: Clinical progression and dose escalation of Tapentadol use in Case 2.

CASE-3: A 29-year-old married female, homemaker by occupation, was brought by her family with complaints of progressively increasing consumption of Tapentadol over the preceding five years, associated with disturbed sleep, irritability, declining day-to-day functioning, and inability to reduce intake despite repeated attempts, decrease intake leading to lacrimation, diarrhea, sweating, restlessness, craving for past 2 days.

The patient was initially prescribed Dicyclomine 10 mg, Paracetamol 325 mg, and Tapentadol 100-150mg in 2021 for severe spasmodic abdominal pain associated with recurrent dysmenorrhea. The medication was prescribed as short-term analgesic therapy. Following the initial exposure, the patient reported significant pain relief along with a subjective sense of relaxation, improved energy, and overall well-being, which reinforced continued use beyond the prescribed duration.

During 2021, after completion of the prescribed course, the patient continued obtaining the medication directly from local pharmacies. Daily consumption gradually increased to approximately 300–400 mg/day of Tapentadol. She reported that

the medication helped her remain active throughout the day and reduced feelings of fatigue.

By 2022, the daily intake had increased to approximately 600–800 mg/day. The patient began consuming the medication even in the absence of pain. Family members observed increasing preoccupation with obtaining the tablets and spending considerable time arranging for their procurement. Concurrent tobacco use was also initiated and gradually increased.

During 2023, the daily Tapentadol intake escalated to approximately 900–1200 mg/day. The patient reported that previously effective doses no longer produced the desired effect, necessitating progressively larger amounts to achieve the same relief and subjective sense of well-being, suggestive of tolerance. Despite concerns expressed by family members regarding excessive use, she continued consumption.

By 2024, the patient was consuming approximately 1200–1500 mg/day of Tapentadol. Repeated attempts to reduce intake were unsuccessful. She began experiencing generalized weakness, excessive sweating, rhinorrhea, body aches, restlessness, and intense craving whenever doses were delayed or unavailable. Consumption increasingly became focused on preventing these symptoms rather than obtaining therapeutic benefit. Household responsibilities and social interactions were adversely affected.

During 2025, daily intake further increased to approximately 1500–1800 mg/day. The patient demonstrated persistent craving, loss of control over use, and continued consumption despite interpersonal conflicts and financial burden. Family members reported increasing irritability and reduced participation in routine activities.

By 2026, the patient had developed severe opioid dependence, with daily consumption reaching approximately 1500–2000 mg/day. Symptoms on missed doses included generalized weakness, sweating, rhinorrhea, body aches, restlessness, anxiety, and intense craving.

Family History- The patient's father and paternal uncle have a history suggestive of alcohol & tobacco dependence. There is no known family history of other psychiatric illness

On Mental Status Examination: The patient was conscious, cooperative, and oriented to time, place, and person. Psychomotor activity was increased with observable restlessness. Speech was relevant and coherent. Affect- anxious with a congruent affect. Thought content revealed preoccupation with obtaining and

consuming Tapentadol. No perceptual abnormalities or psychotic symptoms were

elicited. Attention and concentration were mildly impaired. The patient was in the pre-contemplation stage of motivation.

Investigations: including Complete Blood Count (CBC), Liver Function Tests (LFT), Renal Function Tests (RFT), Serum Electrolytes, Urine Examination, Electrocardiogram (ECG), and MRI Brain, were within normal limits.

Diagnosis: A diagnosis of Mental and Behavioral Disorders due to Use of Opioid dependence syndrome F(11.24) was made.

Scale: The severity of opioid withdrawal was assessed using the Clinical Opiate Withdrawal Scale (COWS). At presentation, the patient had a COWS score of 18, indicating moderate opioid withdrawal.

Treatment: The patient was managed in an inpatient setting. Withdrawal symptoms were managed

Symptomatically, Tab Clonidine up to 0.1 mg TDS and Tab Loperamide, Tab ondansetron for symptomatic treatment, along with supportive care. Following detoxification, Tab Naltrexone 25 mg/day OD was initiated.

At discharge, the patient was maintained on Tab Naltrexone 50 mg/day OD; Tab Melatonin 5mg and Tab Pregabalin were gradually tapered off as withdrawal symptoms resolved, along with motivational enhancement therapy, family psychoeducation, and advice for regular follow-up

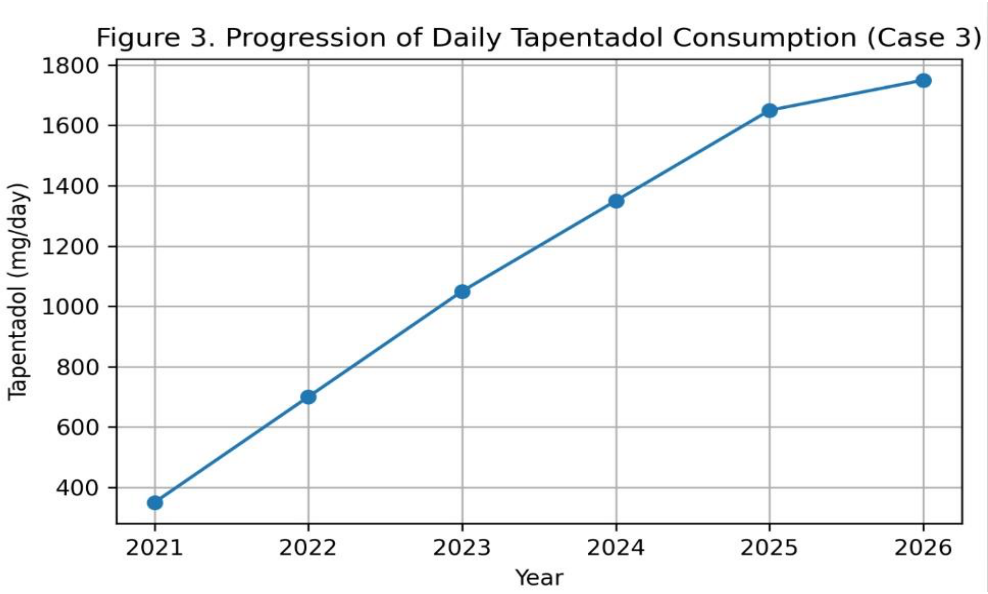


Figure 3: Clinical progression and dose escalation of Tapentadol use in Case 3.

Case-4: A 35-year-old separated male, irregular at work for past 2-3 years, government teacher by occupation as a retail store manager, was brought by his friends with complaints of progressively increasing Tapentadol consumption over five years, repeated unsuccessful attempts to cut down, craving, and a two-day history of restlessness, sweating, lacrimation, rhinorrhea, diarrhea, generalized body aches, and insomnia following abrupt discontinuation.

The patient was first prescribed Tab Tapentadol 50 mg BD in 2021 following lumbar discectomy for a prolapsed intervertebral disc. The medication was intended for short-term post-surgical analgesia. Following initial exposure, he reported pain relief, a pleasant sense of relaxation and improved sleep, which reinforced continued use beyond the prescribed course.

Over the following months, he began procuring Tapentadol without medical prescription, with intake rising to approximately 300 mg/day by the end of 2022.

During 2023, consumption escalated further to approximately 600 mg/day, accompanied by reduced efficiency at work and increasing preoccupation with obtaining the medication.

By 2024, daily intake had increased to approximately 1000 mg/day. During an attempted self-directed reduction that year, the patient first experienced withdrawal-type symptoms — restlessness, sweating, myalgia, and disturbed sleep — which prompted a rapid return to his usual dose.

Through 2025, consumption progressed to approximately 1600 mg/day, with the patient reporting loss of control over use, unsuccessful attempts to cut down, and increasing neglect of family and occupational responsibilities. During same time he started having frequent altercations with family members, irregularities at work further leading to declining his social occupation life leading to separation.

By 2026, daily intake had reached approximately 2200 mg/day. Two days prior the patient abruptly stopped Tapentadol after running out of supply due to financial constraints, following which he developed marked restlessness, sweating, lacrimation, rhinorrhea, diarrhea, generalized body aches, and insomnia, with intense craving — prompting his family to bring him for admission.

Family History: No history of psychiatric illness or substance use disorder was reported among first-degree relatives.

Mental Status Examination: The patient was conscious, cooperative, and oriented to time, place, and person. Psychomotor activity was increased, with visible restlessness and diaphoresis. Affect was anxious. Thought content revealed persistent preoccupation with obtaining Tapentadol and craving. Attention and concentration were markedly impaired. The patient was in the contemplation stage of motivation and demonstrated Grade II insight.

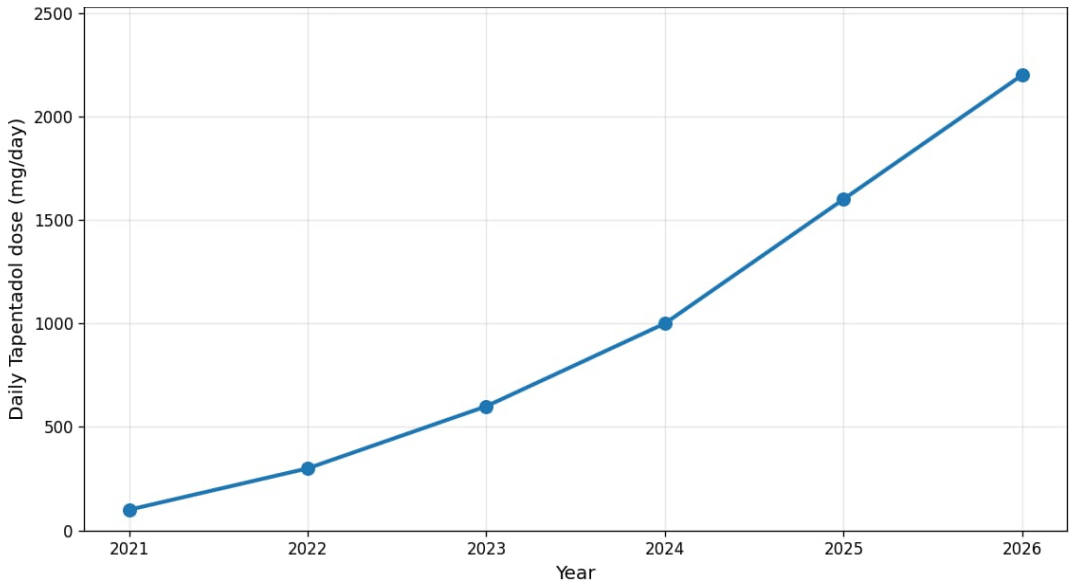
Investigations: Routine investigations, including complete blood count, liver function tests, renal function tests, serum electrolytes, and MRI brain, were within normal limits.

Diagnosis: A diagnosis of Mental and Behavioral Disorders due to Use of Opioids — Dependence Syndrome F (11.24), was made.

Scale: The severity of opioid withdrawal was assessed using the Clinical Opiate Withdrawal Scale (COWS). At presentation, the patient had a COWS score of 23, indicating moderate opioid withdrawal

Treatment: The patient was managed in an inpatient setting with detoxification and symptomatic treatment of withdrawal. Pharmacological agents were gradually increased according to clinical response autonomic withdrawal features (sweating, rhinorrhea, diarrhea) were managed with Tab Clonidine up to 0.2 mg BD, and myalgia/insomnia were managed with Tab Pregabalin up to 75 mg BD, and Intra-venous Fluids. Following stabilization, oral Naltrexone 25 mg/day was initiated for relapse prevention.

At discharge, the patient was maintained on oral Naltrexone 50 mg/day, with Tab Clonidine and Tab Pregabalin gradually tapered off. COWS score reduced to 3, motivational enhancement therapy, relapse-prevention counselling, and family psychoeducation were incorporated, with advice for regular outpatient follow-up.



CASE-5: A 41-year-old married male, employed as a sales executive, was brought to the Department of Psychiatry by his wife with a history of progressively escalating Tapentadol use over the past four years, inability to discontinue the medication despite multiple unsuccessful attempts, and irritability, lacrimation, rhinorrhea, diarrhea, sleep disturbance, and restlessness, craving for past three days following abstinence.

The patient was initially prescribed Tapentadol 50 mg in 2022 following lumbar intervertebral disc prolapse associated with chronic low back pain. The medication was prescribed for short-term pain relief after conservative orthopedic management. During the initial weeks of treatment, the patient experienced significant reduction in pain along with a subjective sense of relaxation, increased physical stamina, and improved sleep quality. Because these effects allowed him to continue working long hours, he continued taking the medication even after the painful episode had resolved.

Over the following months, he began purchasing Tapentadol directly from local pharmacies without medical consultation. By the end of 2022, his daily intake had increased to approximately 300–400 mg/day. He reported that missing dose resulted in body aches, irritability, anxiety, and difficulty concentrating at work.

During 2023, the daily dose gradually escalated to approximately 700–900 mg/day because the previous dose no longer produced the desired effects. The patient developed tolerance and required progressively larger quantities to obtain the same degree of relief and well-being. Family members observed increasing social withdrawal, reduced participation in family activities, and frequent preoccupation with obtaining the medication.

By 2024, Tapentadol consumption had increased to approximately 1200–1600 mg/day. The patient developed prominent withdrawal symptoms whenever the medication was unavailable, including generalized body pain, sweating, rhinorrhea, lacrimation, abdominal discomfort, insomnia, restlessness, and intense craving. Despite financial difficulties and repeated advice from family members to stop the medication, he continued its use.

During 2025–2026, the patient progressed to severe opioid dependence, with daily Tapentadol intake reaching approximately 2200–2600 mg/day. He

reported unsuccessful attempts to reduce the dose because withdrawal symptoms invariably led to relapse. Occupational functioning deteriorated substantially due to frequent absenteeism and declining work performance. Mild nicotine dependence also developed during this period, with consumption of approximately 8–10 cigarettes per day.

Mental status examination: Patient was conscious, cooperative, and oriented to time, place, and person. Psychomotor activity was mildly increased. Affect was anxious. Thought content revealed persistent preoccupation with obtaining Tapentadol. Attention and concentration were mildly impaired. The patient was in the contemplation stage of motivation and demonstrated Grade II insight.

Investigations: Complete blood count, liver function tests, renal function tests, serum electrolytes, urine examination, electrocardiogram, and MRI brain, were within normal limits.

Diagnosis: A diagnosis of Mental and Behavioral Disorders due to Use of Opioids – Dependence Syndrome (F11.24) with Tobacco Dependence Syndrome (F17.24) was made.

Scale: The severity of opioid withdrawal was assessed using the Clinical Opiate Withdrawal Scale (COWS). At presentation, the patient had a COWS score of 19, indicating moderate opioid withdrawal

Treatment: The patient was admitted for inpatient management. Withdrawal symptoms were

managed symptomatically, with doses gradually up titrated according to response: Tab

Clonidine up to 0.1 mg TDS and Tab Pregabalin + Nortriptyline (75/10 mg) combination,

along with non-opioid analgesics and supportive care. Nicotine replacement therapy

was initiated for tobacco dependence. After successful detoxification, oral Naltrexone

25 mg/day was started.At discharge, the patient was maintained on oral Naltrexone 50 mg/day, Tab Melatonin 3mg and nicotine replacement therapy; Tab Clonidine was tapered off, while Tab Pregabalin +Nortriptyline (75/10 mg) was continued for residual sleep disturbance and tingling sensation in B/L legs, with planned further tapering on follow-up, along with motivational

enhancement therapy, relapse-prevention counselling, and family psychoeducation

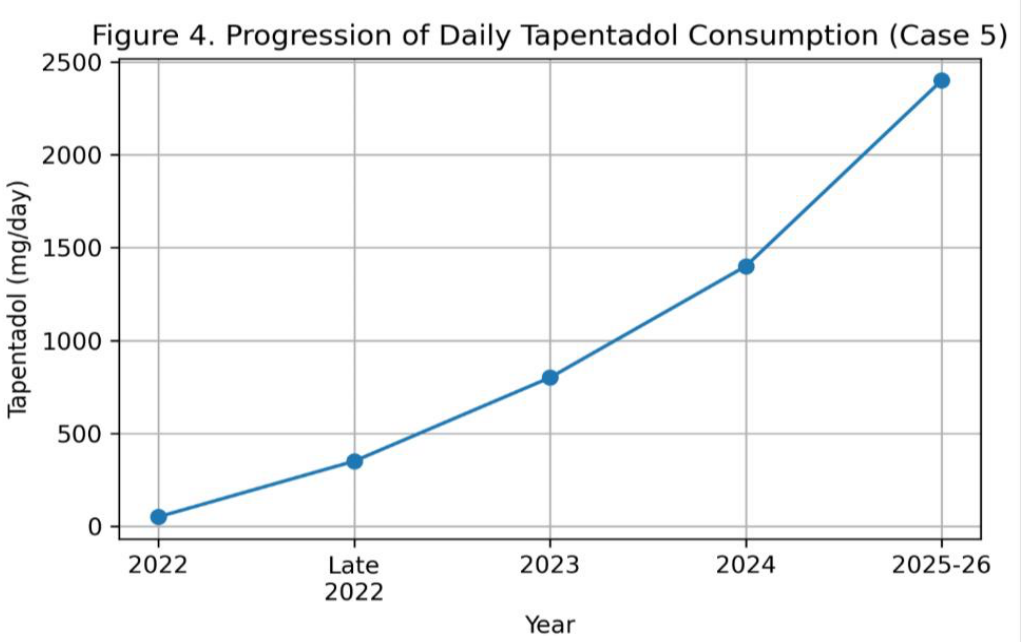


Figure 5: Clinical progression and dose escalation of Tapentadol use in Case 5.

Discussion

This case series describes five patients who developed opioid dependence following the therapeutic prescription of Tapentadol for various painful conditions, including musculoskeletal injury, postoperative pain, dysmenorrhea, chronic low back pain, and other chronic pain syndromes. Despite different clinical indications for initiation, all patients demonstrated a remarkably similar pattern of progression from legitimate medical use to compulsive consumption, ultimately fulfilling the ICD-10 diagnostic criteria for opioid dependence syndrome.[13]

All five patients exhibited a progressive increase in Tapentadol consumption during the course of illness. Patients initially experienced satisfactory analgesia, followed by subjective benefits such as relaxation, improved energy, enhanced work performance, improved sleep, or emotional well-being. These perceived beneficial effects encouraged continued use after the prescribed treatment period and were associated with gradual dose escalation. Similar observations have been reported in previous studies evaluating prescription opioid dependence, where psychological reinforcement plays an important role in maintaining long-term opioid use. [14,15]

All patients developed classical features of opioid dependence, including tolerance, craving, impaired control over drug use, withdrawal symptoms, and continued consumption despite harmful physical, occupational, financial, and social consequences. Withdrawal manifestations such as generalized body aches, rhinorrhoea, lacrimation, sweating, restlessness, insomnia, abdominal discomfort, and intense craving were consistently observed whenever Tapentadol intake was reduced or interrupted. These findings are in agreement with previous reports describing the clinical profile of Tapentadol dependence and opioid withdrawal syndrome. [13,16]

Co-existing use of other substances was frequently observed among the patients in this series. Four patients fulfilled diagnostic criteria for tobacco dependence, while some additionally reported cannabis or alcohol use. Previous studies have shown that polysubstance use is frequently encountered among individuals with opioid use disorder and may adversely affect treatment outcomes by increasing relapse risk and complicating clinical management.[17]

Notably, opioid dependence developed even in patients who had no previous history of illicit opioid use. In every case, Tapentadol was prescribed for a genuine medical indication, supporting growing evidence that prescription opioids themselves may serve as the initiating exposure leading to opioid use disorder when continued without appropriate monitoring.[16] This finding highlights the need for careful patient selection, restricted treatment duration, regular reassessment, and early identification of warning signs such as unsanctioned dose escalation and repeated requests for medication refills.

All patients underwent inpatient detoxification followed by symptomatic management of withdrawal. Psychosocial interventions, including motivational enhancement therapy, family psychoeducation, and relapse-prevention counselling, were incorporated into the treatment plan. Oral naltrexone was prescribed as maintenance therapy whenever clinically indicated. A multidisciplinary approach integrating pharmacological treatment with psychosocial rehabilitation was considered essential for achieving sustained long-term recovery. [18]

Although this case series includes only five patients from a single tertiary care center, it provides clinically detailed descriptions of the transition from therapeutic Tapentadol use to opioid dependence. These observations contribute to the limited literature available from India and emphasize the importance of rational opioid prescribing, close clinical follow-up, and timely psychiatric referral for patients receiving long-term opioid therapy.

Conclusion

This case series highlights that Tapentadol, although prescribed as an effective analgesic for the management of acute and chronic pain, possesses a substantial potential for misuse and dependence when used beyond the recommended duration or without appropriate medical supervision. All five patients in the present series progressed from legitimate therapeutic exposure to clinically significant opioid dependence characterized by tolerance, craving, withdrawal symptoms, impaired control over drug use, and continued consumption despite adverse physical, psychological, occupational, and social consequences.

These observations emphasize the importance of judicious opioid prescribing, careful patient selection, regular follow-up, and early recognition of behaviours suggestive of emerging dependence. Clinicians should educate patients regarding the risks associated with prolonged opioid therapy and reassess the ongoing need for treatment at regular intervals. Early referral to addiction psychiatry services and implementation of multidisciplinary management strategies may help prevent progression to severe opioid dependence and improve long-term outcomes.

Learning Points

- Tapentadol dependence may develop even after legitimate medical prescription for painful conditions.
- Progressive dose escalation, repeated requests for medication, craving, and withdrawal symptoms should be recognized as early warning signs of opioid dependence.
- Regular clinical follow-up and patient education are essential to reduce the risk of iatrogenic opioid dependence.
- A multidisciplinary treatment approach comprising detoxification, pharmacotherapy, motivational enhancement therapy, relapse prevention counselling, and family involvement can improve recovery outcomes.

- Rational opioid prescribing and timely psychiatric referral are crucial for preventing prescription opioid dependence.

Declarations

Ethics Approval The study was conducted after approval from the Institutional Ethics Committee of Chirayu Medical College and Hospital, Bhopal. Written informed consent was obtained from all participants before inclusion in the study.

Patient Consent Written informed consent for publication of anonymized clinical information was obtained from all patients. Every effort has been made to protect patient confidentiality and anonymity.

Funding The authors received no financial support for the conduct of this study or preparation of the manuscript.

Conflict of Interest The authors declare that there are no conflicts of interest.

Author Contributions Pranshi Agrawal: Conceptualization, data collection, patient assessment, literature review, manuscript drafting, and final approval.

Manish Borasi: Study supervision, clinical guidance, manuscript review, and final approval.

Apoorv Shah: Data collection, patient management, manuscript editing, and final approval.

Data Availability The data supporting the findings of this case series are available from the corresponding author upon reasonable request while maintaining patient.

References

1. Tzschentke TM, Jahnel U, Kogel B, Christoph T, Englberger W, De Vry J, Schiene K, Okamoto A, Upmalis D, Weber H, Lange C, Stegmann JU, Kleinert R. Tapentadol hydrochloride: a next-generation, centrally acting analgesic with two mechanisms of action in a single molecule. Drugs Today (Barc). 2009 Jul;45(7):483-96. doi: 10.1358/dot.2009.45.7.1395291. Erratum in: Drugs Today (Barc). 2009 Sep;45(9):711. PMID: 19834626.
2. Vadivelu N, Timchenko A, Huang Y, Sinatra R. Tapentadol extended release for treatment of chronic pain: a review. J Pain Res. 2011;4:211-8. doi: 10.2147/JPR.S14842. PMID: 21887118.
3. American Psychiatric Association. Diagnostic and Statistical Manual of Mental Disorders. 5th ed. Washington, DC: American Psychiatric Association; 2013.
4. Volkow ND, McLellan AT. Opioid Abuse in Chronic Pain--Misconceptions and Mitigation Strategies. N Engl J Med. 2016 Mar 31;374(13):1253-63. doi: 10.1056/NEJMra1507771. PMID: 27028915.
5. United Nations Office on Drugs and Crime. World Drug Report 2023. Vienna: United Nations Office on Drugs and Crime; 2023.
6. Ambekar A, Chadda RK, Khandelwal SK, Rao R, Mishra AK, Agrawal A, et al. Magnitude of Substance Use in India, 2019. New Delhi: National Drug Dependence Treatment Centre (NDDTC), All India Institute of Medical Sciences (AIIMS); Ministry of Social Justice and Empowerment, Government of India; 2019.
7. Dhawan A, Pattanayak RD, Chopra A, Tikoo VK, Kumar R. Injection drug use among children and adolescents in India: Ringing the alarm bells. Indian J Psychiatry. 2016 Oct-Dec;58(4):387-393. doi: 10.4103/0019-5545.196701. PMID: 28196995.
8. Sarkar S, Lal R, Varshney M, Balhara YPS. Tramadol for maintenance in opioid dependence: A retrospective chart review. J Opioid Manag. 2017 Sep/Oct;13(5):329-334. doi: 10.5055/jom.2017.0401. PMID: 29199398.
9. Vowles KE, McEntee ML, Julnes PS, Frohe T, Ney JP, van der Goes DN. Rates of opioid misuse, abuse, and addiction in chronic pain: a systematic review and data synthesis. Pain. 2015 Apr;156(4):569-576. doi: 10.1097/01.j.pain.0000460357.01998.f1. PMID: 25785523.
10. Dart RC, Cicero TJ, Surratt HL, Rosenblum A, Bartelson BB, Adams EH. Assessment of the abuse of tapentadol immediate release: the first 24 months. J Opioid Manag. 2012 Nov-Dec;8(6):395-402. doi: 10.5055/jom.2012.0139. PMID: 23264317.
11. Pergolizzi J, Magnusson P, Coluzzi F, Breve F, LeQuang JAK, Varrassi G. Multimechanistic Single-Entity Combinations for Chronic Pain Control: A Narrative Review. Cureus. 2022 Jun 16;14(6):e26000. doi: 10.7759/cureus.26000. PMID: 35855248.
12. Hser YI, Mooney LJ, Saxon AJ, Miotto K, Bell DS, Zhu Y, Liang D, Huang D. High Mortality Among Patients with Opioid Use Disorder in a Large Healthcare System. J Addict Med. 2017 Jul/Aug;11(4):315-319. doi: 10.1097/ADM.0000000000000312. PMID: 28426439.
13. Kathiresan P, Pakhre A, Kattula D, Sarkar S. Tapentadol Dependence: A Case Series. Prim Care Companion CNS Disord. 2019 Oct 31;21(5):19l02444. doi: 10.4088/PCC.19l02444. PMID: 31682335.
14. Butler SF, McNaughton EC, Black RA. Tapentadol abuse potential: a postmarketing evaluation using a sample of individuals evaluated for substance abuse treatment. Pain Med. 2015 Jan;16(1):119-30. doi: 10.1111/pme.12524. PMID: 25243972.

15. Basu A, Mahadevan J, Ithal D, Selvaraj S, Chand PK, Murthy P. Is tapentadol a potential Trojan horse in the post dextropropoxyphene era in India? Indian J Pharmacol. 2018 Jan-Feb;50(1):44-46. doi: 10.4103/ijp.IJP_21_17. PMID: 29861527.
16. Dowell D, Ragan KR, Jones CM, Baldwin GT, Chou R. CDC Clinical Practice Guideline for Prescribing Opioids for Pain - United States, 2022. MMWR Recomm Rep. 2022 Nov 4;71(3):1-95. doi: 10.15585/mmwr.rr7103a1. PMID: 36327391.
17. Hoffman KA, Ponce Terashima J, McCarty D. Opioid use disorder and treatment: challenges and opportunities. BMC Health Serv Res. 2019 Nov 25;19(1):884. doi: 10.1186/s12913-019-4751-4. PMID: 31767011.
18. Taylor JL, Samet JH. Opioid Use Disorder. Ann Intern Med. 2022 Jan;175(1):ITC1-ITC16. doi: 10.7326/AITC202201180. Epub 2022 Jan 11. PMID: 35007147.